In the Claims:

Please amend claims 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66 and 68-70 as follows:

1-13. (canceled)

14. (Currently Amended) A preparation comprising a protein having heparanase (endo- β -D-glucuronidase) catalytic activity or being cleavable so as to acquire said heparanase catalytic activity, said protein including a polypeptide at least 60% homologous to ~~at least one of~~ SEQ ID NO[s]: 10~~, 14, or 44~~ or a portion[s] thereof, the preparation being free of non-heparanase polypeptides encoded by human nucleic acid sequences.

15. (Previously presented) A pharmaceutical composition comprising, as an active ingredient, the preparation of claim 14, and a pharmaceutically acceptable carrier.

16. (Currently amended) An isolated protein having heparanase (endo- β -D-glucuronidase) catalytic activity or being cleavable so as to acquire said heparanase catalytic activity, said protein including a polypeptide at least 60% homologous to ~~at least one of~~ SEQ ID NO[s]: 10~~, 14, or 44~~ or a portion[s] thereof, said isolated protein being substantially devoid of glycosylation ~~glycosilation~~.

17. (Previously presented) A pharmaceutical composition comprising, as an active ingredient, the isolated protein of claim 16, and a pharmaceutically acceptable carrier.

18. (Currently amended) A preparation comprising a protein having heparanase (endo- β -D-glucuronidase) catalytic activity or being cleavable so as to acquire said heparanase catalytic activity, said protein including a polypeptide at least 60% homologous to ~~at least one of~~ SEQ ID NO[s]: 10~~, 14, or 44~~ or a portion[s] thereof,

the preparation being substantially free of a CXC chemokine or PAI1 (type 1 plasminogen activator inhibitor).

19. (Previously presented) A pharmaceutical composition comprising, as an active ingredient, the preparation of claim 18, and a pharmaceutically acceptable carrier.

20. (Currently amended) An isolated protein having heparanase (endo- β -D-glucuronidase) catalytic activity or being cleavable so as to acquire said heparanase catalytic activity, said protein including a polypeptide at least 60% homologous to ~~at least one of~~ SEQ ID NO[s]: 10~~, 14, or 44~~ or a portion[s] thereof, said isolated protein being characterized by insect cell derived sugar post-translational modifying groups.

21. (Previously presented) A pharmaceutical composition comprising, as an active ingredient, the isolated protein of claim 20, and a pharmaceutically acceptable carrier.

22. (Currently amended) An isolated protein having heparanase catalytic (endo- β -D-glucuronidase) activity or being cleavable so as to acquire said heparanase catalytic activity, said protein including a polypeptide at least 60% homologous to ~~at least one of~~ SEQ ID NO[s]: 10~~, 14, or 44~~ or a portion[s] thereof, said isolated protein being characterized by non-human cell derived sugar post-translational modifying groups.

23. (Previously presented) A pharmaceutical composition comprising, as an active ingredient, the isolated protein of claim 22, and a pharmaceutically acceptable carrier.

24. (Currently amended) A preparation comprising a protein of about 50 or about 65 kDa as determined by a denaturing polyacrylamide gel electrophoresis, said protein having heparanase (endo- β -D-glucuronidase) catalytic activity or being cleavable so as to acquire said heparanase catalytic activity, respectively, said protein including a polypeptide at least 60% homologous to ~~at least one of~~ SEQ ID NO[s]: 10~~,~~

~~14, or 44~~ or a portion[s] thereof, the preparation being free of non-heparanase polypeptides encoded by human nucleic acid sequences.

25. (Previously presented) A pharmaceutical composition comprising, as an active ingredient, the preparation of claim 24, and a pharmaceutically acceptable carrier.

26. (Currently amended) An isolated protein of about 50 or about 65 kDa as determined by a denaturing polyacrylamide gel electrophoresis, said protein having heparanase (endo- β -D-glucuronidase) catalytic activity or being cleavable so as to acquire said heparanase catalytic activity, respectively, said protein including a polypeptide at least 60% homologous to ~~at least one of~~ SEQ ID NO[s]: 10~~, 14, or 44~~ or a portion[s] thereof, said isolated protein being substantially devoid of glycosylation ~~glycosilation~~.

27. (Previously presented) A pharmaceutical composition comprising, as an active ingredient, the isolated protein of claim 26, and a pharmaceutically acceptable carrier.

28. (Currently amended) A preparation comprising a protein of about 50 or about 65 kDa as determined by a denaturing polyacrylamide gel electrophoresis, said protein having heparanase (endo- β -D-glucuronidase) catalytic activity or being cleavable so as to acquire said heparanase catalytic activity, respectively, said protein including a polypeptide at least 60% homologous to ~~at least one of~~ SEQ ID NO[s]: 10~~, 14, or 44~~ or a portion[s] thereof, the preparation being substantially free of a CXC chemokine or PAI1.

29. (Previously presented) A pharmaceutical composition comprising, as an active ingredient, the preparation of claim 28, and a pharmaceutically acceptable carrier.

30. (Currently amended) An isolated protein of about 50 or about 65 kDa as determined by a denaturing polyacrylamide gel electrophoresis, said protein having heparanase (endo- β -D-glucuronidase) catalytic activity or being cleavable so as to acquire said heparanase catalytic activity, respectively, said protein including a polypeptide at least 60% homologous to ~~at least one of~~ SEQ ID NO[s]: 10~~, 14, or 44~~ or a portion[s] thereof, said isolated protein being characterized by insect cell derived sugar post-translational modifying groups.

31. (Previously presented) A pharmaceutical composition comprising, as an active ingredient, the isolated protein of claim 30, and a pharmaceutically acceptable carrier.

32. (Currently amended) An isolated protein of about 50 or about 65 kDa as determined by a denaturing polyacrylamide gel electrophoresis, said protein having heparanase (endo- β -D-glucuronidase) catalytic activity or being cleavable so as to acquire said heparanase catalytic activity, respectively, said protein including a polypeptide at least 60% homologous to ~~at least one of~~ SEQ ID NO[s]: 10~~, 14, or 44~~ or a portion[s] thereof, said isolated protein being characterized by non-human cell derived sugar post-translational modifying groups.

33. (Previously presented) A pharmaceutical composition comprising, as an active ingredient, the isolated protein of claim 32, and a pharmaceutically acceptable carrier.

34. (currently amended) A preparation comprising a protein at least 70 % homologous to SEQ ID NO:10~~, 14 or 44~~, said protein having heparanase (endo- β -D-glucuronidase) catalytic activity or being cleavable so as to acquire said heparanase catalytic activity, the preparation being free of non-heparanase polypeptides encoded by human nucleic acid sequences.

35. (Previously presented) A pharmaceutical composition comprising, as an active ingredient, the preparation of claim 34, and a pharmaceutically acceptable carrier.

36. (currently amended) An isolated protein at least 70 % homologous to SEQ ID NO:10~~, 14 or 44~~, the protein having heparanase (endo- β -D-glucuronidase) catalytic activity or being cleavable so as to acquire said heparanase catalytic activity, said isolated protein being substantially devoid of glycosylation ~~glycosilation~~.

37. (Previously presented) A pharmaceutical composition comprising, as an active ingredient, the isolated protein of claim 36, and a pharmaceutically acceptable carrier.

38. (currently amended) A preparation comprising a protein at least 70 % homologous to SEQ ID NO:10~~, 14 or 44~~, said protein having heparanase (endo- β -D-glucuronidase) catalytic activity or being cleavable so as to acquire said heparanase catalytic activity, the preparation being substantially free of a CXC chemokine or PAI1.

39. (Previously presented) A pharmaceutical composition comprising, as an active ingredient, the preparation of claim 38, and a pharmaceutically acceptable carrier.

40. (Currently amended) An isolated protein at least 70 % homologous to SEQ ID NO:10~~, 14 or 44~~, the protein having heparanase (endo- β -D-glucuronidase) catalytic activity or being cleavable so as to acquire said heparanase catalytic activity, said isolated protein being characterized by insect cell derived sugar post-translational modifying groups.

41. (Previously presented) A pharmaceutical composition comprising, as an active ingredient, the isolated protein of claim 40, and a pharmaceutically acceptable carrier.

42. (currently amended) An isolated protein at least 70 % homologous to SEQ ID NO:10, ~~14 or 44~~, the protein having heparanase catalytic (endo- β -D-glucuronidase) activity or being cleavable so as to acquire said heparanase catalytic activity, said isolated protein being characterized by non-human cell derived sugar prosthetic groups.

43. (Previously presented) A pharmaceutical composition comprising, as an active ingredient, the isolated protein of claim 42, and a pharmaceutically acceptable carrier.

44. (Currently amended) A preparation comprising a protein having a pair of glutamic acid residues participating in its active site and having heparanase (endo- β -D-glucuronidase) catalytic activity or being cleavable so as to acquire said heparanase catalytic activity, said protein including a polypeptide at least 60% homologous to ~~at least one of~~ SEQ ID NO[s]: 10~~, 14, or 44~~ or a portion[s] thereof, the preparation being free of non-heparanase polypeptides encoded by human nucleic acid sequences.

45. (Previously presented) A pharmaceutical composition comprising, as an active ingredient, the preparation of claim 44, and a pharmaceutically acceptable carrier.

46. (Currently amended) An isolated protein having a pair of glutamic acid residues participating in its active site and having heparanase (endo- β -D-glucuronidase) catalytic activity or being cleavable so as to acquire said heparanase catalytic activity, said protein including a polypeptide at least 60% homologous to ~~at least one of~~ SEQ ID NO[s]: 10~~, 14, or 44~~ or a portion[s] thereof, said isolated protein being substantially devoid of glycosylation ~~glycosilation~~.

47. (Previously presented) A pharmaceutical composition comprising, as an active ingredient, the isolated protein of claim 46, and a pharmaceutically acceptable carrier.

48. (Currently amended) A preparation comprising a protein having a pair of glutamic acid residues participating in its active site and having heparanase (endo- β -D-glucuronidase) catalytic activity or being cleavable so as to acquire said heparanase catalytic activity, said protein including a polypeptide at least 60% homologous to ~~at least one of~~ SEQ ID NO[s]: 10~~, 14, or 44~~ or a portion[s] thereof, the preparation being substantially free of a CXC chemokine or PAI1.

49. (Previously presented) A pharmaceutical composition comprising, as an active ingredient, the preparation of claim 48, and a pharmaceutically acceptable carrier.

50. (Currently amended) An isolated protein having a pair of glutamic acid residues participating in its active site and heparanase (endo- β -D-glucuronidase) catalytic activity or being cleavable so as to acquire said heparanase catalytic activity, said protein including a polypeptide at least 60% homologous to ~~at least one of~~ SEQ ID NO[s]: 10~~, 14, or 44~~ or a portion[s] thereof, said isolated protein being characterized by insect cell derived sugar post-translational modifying groups.

51. (Previously presented) A pharmaceutical composition comprising, as an active ingredient, the isolated protein of claim 50, and a pharmaceutically acceptable carrier.

52. (Currently amended) An isolated protein having a pair of glutamic acid residues participating in its active site and having heparanase catalytic (endo- β -D-glucuronidase) activity or being cleavable so as to acquire said heparanase catalytic activity, said protein including a polypeptide at least 60% homologous to ~~at least one of~~

SEQ ID NO[s]: 10~~, 14, or 44~~ or a portion[s] thereof, said isolated protein being characterized by non-human cell derived sugar post-translational modifying groups.

53. (Previously presented) A pharmaceutical composition comprising, as an active ingredient, the isolated protein of claim 52, and a pharmaceutically acceptable carrier.

54. (Currently amended) A preparation comprising a protein having heparanase (endo- β -D-glucuronidase) catalytic activity or being cleavable so as to acquire said heparanase catalytic activity, said protein being capable of eliciting an anti-heparanase antibody, said protein including a polypeptide at least 60% homologous to ~~at least one of~~ SEQ ID NO[s]: 10~~, 14, or 44~~ or a portion[s] thereof, the preparation being free of non-heparanase polypeptides encoded by human nucleic acid sequences.

55. (Previously presented) A pharmaceutical composition comprising, as an active ingredient, the preparation of claim 54, and a pharmaceutically acceptable carrier.

56. (Currently amended) An isolated protein having heparanase (endo- β -D-glucuronidase) catalytic activity or being cleavable so as to acquire said heparanase catalytic activity, said protein being capable of eliciting an anti-heparanase antibody, said protein including a polypeptide at least 60% homologous to ~~at least one of~~ SEQ ID NO[s]: 10~~, 14, or 44~~ or a portion[s] thereof, said isolated protein being substantially devoid of glycosylation ~~glycosilation~~.

57. (Previously presented) A pharmaceutical composition comprising, as an active ingredient, the isolated protein of claim 56, and a pharmaceutically acceptable carrier.

58. (Currently amended) A preparation comprising a protein having heparanase (endo- β -D-glucuronidase) catalytic activity or being cleavable so as to

acquire said heparanase catalytic activity, said protein being capable of eliciting an anti-heparanase antibody, said protein including a polypeptide at least 60% homologous to ~~at least one of~~ SEQ ID NO[s]: 10~~, 14, or 44~~ or a portion[s] thereof, the preparation being substantially free of a CXC chemokine or PAI1.

59. (Previously presented) A pharmaceutical composition comprising, as an active ingredient, the preparation of claim 58, and a pharmaceutically acceptable carrier.

60. (Currently amended) An isolated protein having heparanase (endo- β -D-glucuronidase) catalytic activity or being cleavable so as to acquire said heparanase catalytic activity, said protein being capable of eliciting an anti-heparanase antibody, said protein including a polypeptide at least 60% homologous to ~~at least one of~~ SEQ ID NO[s]: 10~~, 14, or 44~~ or a portion[s] thereof, said isolated protein being characterized by insect cell derived sugar post-translational modifying groups.

61. (Previously presented) A pharmaceutical composition comprising, as an active ingredient, the isolated protein of claim 60, and a pharmaceutically acceptable carrier.

62. (Currently amended) An isolated protein having heparanase catalytic (endo- β -D-glucuronidase) activity or being cleavable so as to acquire said heparanase catalytic activity, said protein being capable of eliciting an anti-heparanase antibody, said protein including a polypeptide at least 60% homologous to ~~at least one of~~ SEQ ID NO[s]: 10~~, 14, or 44~~ or a portion[s] thereof, said isolated protein being characterized by non-human cell derived sugar post-translational modifying groups.

63. (Previously presented) A pharmaceutical composition comprising, as an active ingredient, the isolated protein of claim 62, and a pharmaceutically acceptable carrier.

64. (Currently amended) An isolated protein having heparanase catalytic (endo- β -D-glucuronidase) activity or being cleavable so as to acquire said heparanase catalytic activity, said protein including a polypeptide at least 60% homologous to ~~at least one of~~ SEQ ID NO[s]: 10~~, 14, or 44~~ or a portion[s] thereof, said protein being capable of eliciting an anti-heparanase antibody.

65. (Previously presented) A pharmaceutical composition comprising, as an active ingredient, the isolated protein of claim 62, and a pharmaceutically acceptable carrier.

66. (Currently Amended) A preparation comprising a protein having heparanase (endo- β -D-glucuronidase) catalytic activity or being cleavable so as to acquire said heparanase catalytic activity, said protein including a polypeptide at least 60% homologous to ~~at least one of~~ SEQ ID NO[s]: 10~~, 14, or 44~~ or a portion[s] thereof.

67. (previously presented) The preparation of claim 66, wherein said polypeptide is characterized by being recombinant.

68. (Currently Amended) A preparation comprising a recombinant protein having heparanase (endo- β -D-glucuronidase) catalytic activity or being cleavable so as to acquire said heparanase catalytic activity, wherein said recombinant protein includes a polypeptide encoded by a polynucleotide capable of inducing heparanase activity after transfection into a cell, said cell being characterized by lacking such heparanase activity before said transfection, the preparation being free of non-heparanase polypeptides encoded by human nucleic acid sequences, the polypeptide having a pair of glutamic acid residues participating in its active site, said polypeptide being at least 60% homologous to SEQ ID NO: 10 or a portion thereof.

69. (Currently Amended) A preparation comprising a recombinant protein having heparanase (endo- β -D-glucuronidase) catalytic activity or being cleavable so as to acquire said heparanase catalytic activity, wherein said recombinant protein includes a

polypeptide capable of being encoded by a polynucleotide capable of hybridizing to at least a portion of ~~at least one of~~ SEQ ID NO[s]: 9~~, 13, 42, or 43~~ at 68 °C in 6 x SSC, 1 % SDS, 5 x Denharts, 10 % dextran sulfate, 100 µg/ml salmon sperm DNA, and ^{32}p labeled probe and wash at 68 °C with 3 x SSC and 0.1 % SDS.

70. (Currently Amended) A preparation comprising a recombinant protein having heparanase (endo- β -D-glucuronidase) catalytic activity or being cleavable so as to acquire said heparanase catalytic activity, said protein being characterized by being about 50 or about 65 kDa, and said protein being characterized by being capable of being purified with a purification procedure initiated with Heparin-Sepharose chromatography, followed by gel filtration and pooling of active column fractions, wherein a quantity of said protein after said purification correlates with heparanase activity in said pooled active column fractions, said protein being at least 60% homologous to SEQ ID NO: 10 or a portion thereof.